Appendix A Online Survey Results



Publish Results

Analyze Survey Results - Results Summary

Survey: MVRPC Bikeways Planning Survey

The data below represents this survey's consolidated results. To conduct analysis on what types of individuals answered questions in a particular way, click on the Create Criteria button.

Individual Results

	Respondent Statistics		Points Summary	Convert to PDF
Closed	Total Responses:	701	No Points Questions used in this survey.	Convert to Word
01/22/2015	Completes:	538		Email PDE
03/06/2015	Partials:	163		
				Export To Excel
			Crea	te Display Criteria
			Criteria Active: 0	Create Criteria
	View Questions:	1 to 5		
	Closed 01/22/2015 03/06/2015	ClosedTotal Respondent Statistics01/22/2015Completes:03/06/2015Partials:	Respondent StatisticsClosedTotal Responses:70101/22/2015Completes:53803/06/2015Partials:163View Questions:1 to 5	Respondent Statistics Points Summary Closed Total Responses: 701 01/22/2015 Completes: 538 03/06/2015 Partials: 163 Creation: View Questions: 1 to 5

Summarized Data Report - Survey: MVRPC Bikeways Planning Survey

1. Do you own a bike?



2. How would you classify yourself as a bicyclist?



3. What destinations would you like to bike to from your home? Please tell us if the destination is very important to you or not important. Also, let us know if you already bike there.

	Very important to me	Somewhat important	Not important to me	I already I	oike there	Total
Shared-use paths / paved bikeways:	479(60.33%)	71(8.94%)	11(1.39%)	233(29	0.35%)	794
Where I work:	222(30.66%)	162(22.38%)	215(29.7%)	125(17	.27%)	724
My/my children's school:	103(15.7%)	104(15.85%)	421(64.18%)	28(4.)	27%)	656
Grocery store or other local shopping:	189(27.23%)	240(34.58%)	185(26.66%)	80(11	.53%)	694
Parks:	373(49.21%)	185(24.41%)	29(3.83%)	171(22	.56%)	758
Gym, recreation center, community center, senior center:	207(30.53%)	267(39.38%)	149(21.98%)	55(8.	11%)	678
Libraries:	187(26.79%)	249(35.67%)	174(24.93%)	88(12	.61%)	698
Church:	60(9.24%)	130(20.03%)	429(66.1%)	30(4.	62%)	649
Bus stops or hubs:	65(10.03%)	132(20.37%)	430(66.36%)	21(3.)	24%)	648
			Total Responded to this	question:	640	91.3%
			Total who skipped this	question:	61	8.7%

Total:

701

100%

	Very important to me	Somewhat important	Not important to me	I already	bike there	Total
Malls and major retail outlets:	66(10.12%)	180(27.61%)	382(58.59%)	24(3.	68%)	652
Friend's home or neighborhood close to yours:	220(30.51%)	259(35.92%)	117(16.23%)	125(17	7.34%)	721
Entertainment districts (i.e. Oregon District, the Greene):	197(28.76%)	201(29.34%)	215(31.39%)	72(10	.51%)	685
Dining / restaurants / coffee shops:	238(33.43%)	265(37.22%)	110(15.45%)	99(13	3.9%)	712
			Total Responded to this	question:	640	91.3%
			Total who skipped this	question:	61	8.7%
				Total:	701	100%



4.

Are there any other destinations you would like to bike to from your home? Please list them.

			Responses	Percent
Responses:	Q		170	100%
		Total Responded to this question:	170	24.25%
		Total who skipped this question:	531	75.75%
		Total:	701	100%

Graph/Chart function not relevant for this question type.

5. Please tell us what different types of non-motorized facilities you feel most comfortable on:

	Very comfortable	Somewhat comfortable	Uncomfortable	Won't u	ise at all	Total
Paved shared use paths:	579(93.24%)	34(5.48%)	6(0.97%)	2(0.	32%)	621
Natural surface trails (i.e dirt or gravel):	166(26.73%)	253(40.74%)	143(23.03%)	59(9	9.5%)	621
			Total Responded to this	question:	621	88.59%
			Total who skipped this	question:	80	11.41%
				Total:	701	100%

	Very comfortable	Somewhat comfortable	Uncomfortable	Won't u	se at all	Total
Taking the lane (riding in the center of the traffic lane):	91(14.65%)	177(28.5%)	236(38%)	117(18	3.84%)	621
On-street bike lanes:	210(33.82%)	277(44.61%)	107(17.23%)	27(4.	35%)	621
Buffered (separated from traffic) on-street bike lanes:	426(68.6%)	167(26.89%)	18(2.9%)	10(1.	61%)	621
Signed on-road bike routes:	195(31.4%)	279(44.93%)	123(19.81%)	24(3.	86%)	621
Sidewalks / side paths:	193(31.08%)	250(40.26%)	110(17.71%)	68(10	.95%)	621
Marked crosswalk:	258(41.55%)	283(45.57%)	56(9.02%)	24(3.	86%)	621
Intersections with traffic lights:	272(43.8%)	274(44.12%)	67(10.79%)	8(1.2	29%)	621
Intersections with stop signs:	248(39.94%)	305(49.11%)	63(10.14%)	5(0.8	31%)	621
Road crossings with a traffic island:	242(39.03%)	281(45.32%)	88(14.19%)	9(1.4	45%)	620
Unmarked road crossings:	98(15.78%)	263(42.35%)	235(37.84%)	25(4.	03%)	621
Bike boxes:	185(29.79%)	288(46.38%)	94(15.14%)	54(8	.7%)	621
Bike stairs:	234(37.68%)	246(39.61%)	95(15.3%)	46(7.	41%)	621
			Total Responded to this qu	estion:	621	88.59%
			Total who skipped this qu	estion:	80	11.41%
				Total:	701	100%



6. What is the biggest barrier for you to use your bicycle for daily activities and errands? Please select your **TOP BARRIER**.

		Responses	Percent
Unsure of route:		15	2.48%
No bicycle parking:		7	1.16%
No bike lanes:		86	14.24%
Inadequate street lighting:		3	0.5%
Unsafe intersections:		12	1.99%
Poor street pavement conditions/debris:		20	3.31%
Unsafe / unlawful motorist behavior:		59	9.77%
Gaps or disconnects in bicycle network:		71	11.75%
Auto traffic speeds:		21	3.48%
Amount of auto traffic:		49	8.11%
Personal safety concerns (fear of crashes):		11	1.82%
Too little time:		34	5.63%
Destinations are too far away:		45	7.45%
Bad weather:		73	12.09%
Lack of worksite amenities (lockers, showers, dressing rooms):		13	2.15%
Travel with small children:		9	1.49%
I don't know the rules of the road for bicycling:		3	0.5%
I am not physically able to ride more:		5	0.83%
	Total Responded to this question:	604	86.16%
	Total who skipped this question:	97	13.84%
	Total:	701	100%



7.

Please select your SECOND HIGHEST BARRIER:

	Responses	Percent
	10	1.66%
	19	3.15%
	39	6.46%
	3	0.5%
	29	4.8%
	48	7.95%
	76	12.58%
	53	8.77%
	48	7.95%
	56	9.27%
Total Responded to this question:	604	86.16%
Total who skipped this question:	97	13.84%
Total:	701	100%
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8.

Please select your THIRD HIGHEST BARRIER:

No bike lane ate street

ure of route

	Responses	Percent
Unsure of route:	9	1.49%
No bicycle parking:	12	1.99%
Total Responded to this question:	604	86.16%
Total who skipped this question:	97	13.84%
Total:	701	100%

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		Responses	Percent
No bike lanes:		49	8.11%
Inadequate street lighting:		7	1.16%
Unsafe intersections:		31	5.13%
Poor street pavement conditions/debris:		40	6.62%
Unsafe / unlawful motorist behavior:		71	11.75%
Gaps or disconnects in bicycle network:		55	9.11%
Auto traffic speeds:		44	7.28%
Amount of auto traffic:		72	11.92%
Personal safety concerns (fear of crashes):		18	2.98%
Too little time:		26	4.3%
Destinations are too far away:		32	5.3%
Bad weather:		34	5.63%
Lack of worksite amenities (lockers, showers, dressing rooms):		17	2.81%
Travel with small children:		8	1.32%
I don't know the rules of the road for bicycling:		0	0%
I am not physically able to ride more:		2	0.33%
Hills:		8	1.32%
Crime:		4	0.66%
Insufficient bicycle gear:		2	0.33%
Bicycling is less convenient than other travel options:		19	3.15%
I have too many things to carry:	-	27	4.47%
Nothing – I ride as much as I want:		17	2.81%
	Total Responded to this question:	604	86.16%
	Total who skipped this question:	97	13.84%
	Total:	701	100%



9. Please select your FOURTH HIGHEST BARRIER:

		Responses	Percent
Unsure of route:		10	1.66%
No bicycle parking:		18	2.98%
No bike lanes:		30	4.97%
Inadequate street lighting:		11	1.82%
Unsafe intersections:		27	4.47%
Poor street pavement conditions/debris:		40	6.62%
Unsafe / unlawful motorist behavior:		44	7.28%
Gaps or disconnects in bicycle network:		51	8.44%
Auto traffic speeds:		46	7.62%
Amount of auto traffic:		57	9.44%
Personal safety concerns (fear of crashes):		29	4.8%
Too little time:		38	6.29%
Destinations are too far away:		48	7.95%
Bad weather:		35	5.79%
Lack of worksite amenities (lockers, showers, dressing rooms):		10	1.66%
Travel with small children:		4	0.66%
I don't know the rules of the road for bicycling:		1	0.17%
I am not physically able to ride more:		1	0.17%
Hills:		17	2.81%
	Total Responded to this question:	604	86.16%
	Total who skipped this question:	97	13.84%
	Total:	701	100%



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sure of route

		Responses	Percent
Unsure of route:		12	1.99%
No bicycle parking:		21	3.48%
No bike lanes:		23	3.81%
Inadequate street lighting:		11	1.82%
Unsafe intersections:		40	6.62%
Poor street pavement conditions/debris:		38	6.29%
Unsafe / unlawful motorist behavior:		37	6.13%
Gaps or disconnects in bicycle network:		41	6.79%
Auto traffic speeds:		38	6.29%
Amount of auto traffic:		32	5.3%
Personal safety concerns (fear of crashes):		24	3.97%
	Total Responded to this question:	604	86.16%
	Total who skipped this question:	97	13.84%
	Total:	701	100%







12. Please tell us what prevents your child(ren) from bicycling to school:

	Significant barrier	Sometimes a barrier	Not a problem	Not applicable	Total
Safety:	97(16.19%)	32(5.34%)	35(5.84%)	435(72.62%)	599
Bike security:	34(5.68%)	42(7.01%)	79(13.19%)	444(74.12%)	599
Too far:	55(9.18%)	29(4.84%)	80(13.36%)	435(72.62%)	599
Too close:	8(1.34%)	4(0.67%)	111(18.53%)	476(79.47%)	599
Time:	41(6.84%)	50(8.35%)	68(11.35%)	440(73.46%)	599
Age:	45(7.51%)	47(7.85%)	71(11.85%)	436(72.79%)	599
Bicycle skill level:	26(4.34%)	54(9.02%)	82(13.69%)	437(72.95%)	599
Weather:	49(8.18%)	104(17.36%)	13(2.17%)	433(72.29%)	599
Stuff to carry:	66(11.02%)	67(11.19%)	35(5.84%)	431(71.95%)	599
Home schooled:	6(1%)	1(0.17%)	19(3.17%)	573(95.66%)	599
Bus:	21(3.51%)	19(3.17%)	58(9.68%)	501(83.64%)	599
Not interested:	26(4.34%)	31(5.18%)	38(6.34%)	504(84.14%)	599
			Total Responded to this	question: 599	85.45%

Total who skipped this question: 102 14.55%





13. Please list any other barriers that prevent your child(ren) from bicycling to school:

			Responses	Percent
Responses:	Q		99	100%
		Total Responded to this question:	99	14.12%
		Total who skipped this question:	602	85.88%
		Total:	701	100%

Graph/Chart function not relevant for this question type.

14.

Do you have project types you would like to see in the MVRPC Bikeways Plan Update? Select and rank your **TOP PRIORITY**:



15. Please select your **SECOND PRIORITY**:

		Responses	Percent
New paved shared use paths:		72	13.02%
		pag	je 102



		Responses	Percent
New paved shared use paths:		47	8.5%
Natural surface trails (i.e. dirt or gravel):		15	2.71%
On-road bike lanes and shoulders:		75	13.56%
Separated (or buffered from car traffic) on-street bike lanes:		78	14.1%
Signed on-road bike routes:		34	6.15%
Safe routes to school:		21	3.8%
Secure / safe bicycle parking:		32	5.79%
Intersection improvements to make crossing major roads easier:		57	10.31%
Access to transit (bus stops and hubs):		10	1.81%
Safer, more clearly marked transitions from bikeway to roadway:		28	5.06%
Improved parking facilities near bikeways:		10	1.81%
Repaving projects:		37	6.69%
Signage Improvement and Replacement:		16	2.89%
Education or promotional programs:		20	3.62%
Enforcement for motorists and bicyclists:		46	8.32%
App for bikeway navigation:		27	4.88%
	Total Responded to this question:	553	78.89%
	Total who skipped this question:	148	21.11%
	Total:	701	100%



17. Please select your FOURTH PRIORITY:

		Responses	Percent
New paved shared use paths:		29	5.24%
Natural surface trails (i.e. dirt or gravel):		16	2.89%
On-road bike lanes and shoulders:		28	5.06%
Separated (or buffered from car traffic) on-street bike lanes:		44	7.96%
Signed on-road bike routes:		53	9.58%
Safe routes to school:		13	2.35%
Secure / safe bicycle parking:		41	7.41%
Intersection improvements to make crossing major roads easier:		70	12.66%
Access to transit (bus stops and hubs):		6	1.08%
Safer, more clearly marked transitions from bikeway to roadway:		48	8.68%
Improved parking facilities near bikeways:		21	3.8%
Repaving projects:		51	9.22%
Signage Improvement and Replacement:		27	4.88%
Education or promotional programs:		36	6.51%
Enforcement for motorists and bicyclists:		53	9.58%
App for bikeway navigation:		17	3.07%
	Total Responded to this question:	553	78.89%
	Total who skipped this question:	148	21.11%
	Total:	701	100%



18. Please select your **FIFTH PRIORITY:**

		Responses	Percent
New paved shared use paths:		25	4.52%
Natural surface trails (i.e. dirt or gravel):		13	2.35%
On-road bike lanes and shoulders:		30	5.42%
Separated (or buffered from car traffic) on-street bike lanes:		31	5.61%
Signed on-road bike routes:		32	5.79%
Safe routes to school:		13	2.35%
Secure / safe bicycle parking:		36	6.51%
Intersection improvements to make crossing major roads easier:		54	9.76%
Access to transit (bus stops and hubs):		8	1.45%
Safer, more clearly marked transitions from bikeway to roadway:		42	7.59%
Improved parking facilities near bikeways:		20	3.62%
Repaving projects:		51	9.22%
Signage Improvement and Replacement:		39	7.05%
Education or promotional programs:		45	8.14%
Enforcement for motorists and bicyclists:		55	9.95%
App for bikeway navigation:		59	10.67%
	Total Responded to this question:	553	78.89%
	Total who skipped this question:	148	21.11%
	Total:	701	100%



19.

Please list any other project types that you would like to see in the MVRPC Bikeways Plan Update:

		Responses	Percent
Responses: 🔍		152	100%
Total Respo	nded to this question:	152	21.68%
Total who	skipped this question:	549	78.32%
	Total:	701	100%
Graph/Chart function not relevant for this questi	on type.		

20.

Please provide a description and location of up to five specific projects or programs you would like to see included in the MVRPC Bikeways Plan Update:

			Responses	Percent
Responses:	Q		552	100%
		Total Responded to this question:	552	78.74%
		Total who skipped this question:	149	21.26%
		Total:	701	100%

Graph/Chart function not relevant for this question type.

21.

In order to know how representative the survey is of the general public, please tell us some more about yourself:

			Responses	Percent
Home ZIP code::	Q		543	100.37%
Work ZIP code::	Q		543	100.37%
Age::	Q	Highest: 100.00 Lowest: 0.00 Average: 49.01 Median: 52.00	543	100.37%
Annual household income::	0		541	100%
		Total Responded to this question:	541	77.18%
		Total who skipped this question:	160	22.82%
		Total:	701	100%



22. Gender:







24. Do you, or does any member of your household, work for or participate in any of the following?





Appendix B Public Input Suggestions by County and Region

Repeats	County	Project
14	GREENE	Fairborn to Yellow Springs mixed use path or buffered bike lanes
11	GREENE	Trail Bridge over Detroit Street near Xenia Station
9	GREENE	A direct connection from Dayton to Springfield (Three Counties Trail)
7	GREENE	Bellbrook to Spring Valley Trail
6	GREENE	Connect WSU to trail system
5	GREENE	Cleaner route and safer Bike Route from Beavercreek Station straight to Wright State down Fairfield Road. Possible neighborhood routes: Woods, Turnbull, Elementary School, and then the Commons bike trail over the new bridge.
4	GREENE	Paved trail connecting the Little Miami Scenic Trail north of Yellow Springs to Young's Jersey Dairy and then on to John Bryan State Park
3	GREENE	More routes to WPAFB
3	GREENE	Fairborn to Xenia
3	GREENE	Bike facility on Research from County Line Road to Grange Hall
3	GREENE	Bike lanes on Grange Hall Road/National Road
3	GREENE	Find a safe way to access the Little Miami Scenic Trail from Fairground Recreation Center thru Angela Ave. traffic light in front of Groceryland. I know many doable options and key land acquisition from a willing seller.
2	GREENE	Detroit Street in Xenia off the sidewalk
2	GREENE	Bridge or dedicated bike lane on Indian Ripple Rd over I-675 in Beavercreek for access to the Greene
2	GREENE	WSU I-675 walkway/bike bridge project
2	GREENE	Connection to Grange Hall and N. Fairfield paths for Knollwood (Beavercreek)
2	GREENE	More Share the Road signs in Xenia
2	GREENE	Indian Ripple Road, Shakertown Road, South Fairfield Road safe lanes would connect many potential bike commuters to the bike path network.
	GREENE	WSU to Airway Shopping Center
	GREENE	Bike-friendly crossings of North Fairfield in Beavercreek
	GREENE	Bike-friendly crossings of Dayton-Xenia in Beavercreek

Repeats	County	Project
	GREENE	Jamestown trail connection to Ohio to Erie Trail
	GREENE	Safer routes through downtown Fairborn
	GREENE	Fairborn - Kaufman Ave Trail to Yellow Springs Fairfield Road
	GREENE	Bike lanes on spring valley-painters rd from cornstalk rd through Spring Valley on 725 connecting to bike path.
	GREENE	Protected (on or off-road) bikeways to Yellow Springs High School are either missing or in need of repair (Dayton and S. College streets).
	GREENE	Xenia Avenue and Dayton Street in Yellow Springs examined for on- street protected bikeways
	GREENE	Improve intersections on Creekside Trail through Beavercreek
	GREENE	Safer way to cross SR 35 at Factory Road and other crossing points In Beavercreek
	GREENE	Cedarville to Yellow Springs
	GREENE	Fairborn to Taylorsville
	GREENE	Bike lanes on Xenia streets
	GREENE	Widen Old Yellow Springs Road for bike facility
	GREENE	Widen Ravenwood Road for bike facility
	GREENE	Widen Col Glen Road to Kaufman for bike facility
	GREENE	A spur from the Xenia-BC trail that reaches dayton-xenia road, maybe at the public park by progress drive
	GREENE	Feedwire East/West route with new Costco development around Wilmington Pk/Feedwire
	GREENE	Would love to improve roads around Bellbrook/sugarcreek to make wider and more bike friendly.
	GREENE	Trail connection to Clifton Mill
	GREENE	Remove metal from bike path near Kaufman avenue next to Air Force base,
	GREENE	Better access to the bikeways from neighborhoods near The Greene.
	GREENE	Build an off-road bike path from the Creekside Trail right near the I-675/US-35 exchange directly north towards Wright-Patt Air Force Base (in 675 Right of Way)
	GREENE	Build some off-road bike paths near New Germany Trebein Rd., Beaver Valley Road, and Old Yellow Springs Rd. in Fairborn/ Beavercreek that will connect to the Huffman Prairie Bikeway and Creekside Trail
	GREENE	Wider shoulders or dedicated bike lanes on Airway/Colonel Glenn Highway over the Exit 15 ramp.
	GREENE	Bellbrook to creekside
	GREENE	Improve Creekside Trail crossing of 2nd Street in Xenia to include a safety island in the street.
	GREENE	Connect Collier Street in Xenia to the Ohio-to-Erie Trail.

Repeats	County	Project
	GREENE	Improve intersection (Detroit at Miami) for crossing from Xenia Station to Jamestown/Ohio-to-Erie Trails.
	GREENE	Provide pedestrian/bikeway along Second Street between Colorado Drive and Progress Drive in Xenia.
	GREENE	Provide bikeway connection along Dayton Avenue between Progress Drive and Sheehan Drive in Xenia
	GREENE	Trail crossing improvements at intersection of Kinsey and SR 68
	GREENE	Better signage for car drivers approaching crossings of the Jamestown Connector (at Bickett, Hoop, Jasper and Quarry)
	GREENE	Better signage on Dayton Yellow Springs Road to get from Twin Towers Park to Goes Station
	GREENE	Connect Ferguson School to Bike Path (Beavercreek).
	GREENE	Bike/Ped bridge over Beaver Creek to connect Gateway Drive OR Valle Greene Drive to Market Court in Fairborn.
	GREENE	Huffman Prairie trail across WSU Kaufman Rd. needs attention
	GREENE	Huffman Dam to New Carlisle

Repeats	County	Project
13	MIAMI	Urbana-Piqua connector
13	MIAMI	Piqua to Sidney trail
10	MIAMI	Piqua to Union City
7	MIAMI	Trail along Stillwater river from Miami County south to Englewood
5	MIAMI	In Troy, there are only bike paths near the downtown. There are no paths in the southwest area of the city. I would like to see some connectors to the other trails from this side of town. Swailes Road.
3	MIAMI	Continue bike lane south 25A from Piqua city limits to Peterson Rd at traffic light Just widen the berm
3	MIAMI	Piqua: 1) buffered on street bike lanes; 2) Bicycle friendly signal technology; 3) intersection cyclist box; 4) transportation safety for bikes and cars
2	MIAMI	Springfield to New Carlisle to Troy Connector
2	MIAMI	Troy to Urbana
2	MIAMI	Improve bicycle friendliness at Ross Rd Trail Access, sharrows, caution lights, share the road, 35 mph or lower speed limit, bike lane, etc. Adventures on Great Miami is destination ni this area.
	MIAMI	Bridge at Piqua Power Plant - to be ADA accessible
	MIAMI	Neighborhood connections in Tipp City
	MIAMI	Market Street Bridge in Troy - bike lanes
	MIAMI	Ramps to Adams Street Bridge in Troy - too steep.
	MIAMI	In Troy between Market Street and Adams Street on Great Miami Trail upgrade from substandard sidewalk to 10' paved trail
	MIAMI	More bicycle organized activities in Miami County

Repeats	County	Project
	MIAMI	Miami County, Troy and Tipp City in particular. Safe biking to shopping areas and restaurants from the township.
	MIAMI	West Milton to GMR Trail.
	MIAMI	Connect North end of a Duke Park (Troy) trail to Eldean Road covered bridge along Miami River
	MIAMI	Connect South end of a Duke Park (Troy) trail to existing levy trail at park across from Hobart Arena.
	MIAMI	Bike Hub in Miami County
	MIAMI	Great Miami River bridge to connect Treasure Island to Duke Park in Troy
	MIAMI	GMR Trail maintenance between Troy and Tipp City
	MIAMI	Signage for blind curves on trails
	MIAMI	On top of the levee the concrete path needs to be widened
	MIAMI	Connect to retail on Covington (Kroger, etc.) and Smitty's BMX - Piqua
	MIAMI	Troy to Laura along 55
	MIAMI	Peters & 25A can get people into Troy & Tipp – it needs to be more bike friendly
	MIAMI	Connect to Pitsenbarger Park - Piqua
	MIAMI	Create linkage from M.C. YMCA Robinson Branch to the Great Miami River Trail
Demoste	Country	Destruct
Repeats	County	Project
Repeats 32	MONT	Project Build the Great-Little Trail
Repeats 32 22	MONT	Build the Great-Little Trail Continue Iron Horse Trail into Centerville: tunnel under I-675
22 21	MONT MONT MONT	Project Build the Great-Little Trail Continue Iron Horse Trail into Centerville; tunnel under I-675 Complete DKC through Warren Street and Downtown Dayton
22 21 16	MONT MONT MONT MONT	ProjectBuild the Great-Little TrailContinue Iron Horse Trail into Centerville; tunnel under I-675Complete DKC through Warren Street and Downtown DaytonGreater Downtown Dayton bike facilities: bike lanes, buffered bikelanes. Destinations: Oregon District, 2nd Street Market, St. Anne'sHill. Locations: Patterson, Perry Street, Fifth Street, Second Street,Patterson at Jefferson, Patterson at Main
Repeats 32 22 21 16 10	MONT MONT MONT MONT	ProjectBuild the Great-Little TrailContinue Iron Horse Trail into Centerville; tunnel under I-675Complete DKC through Warren Street and Downtown DaytonGreater Downtown Dayton bike facilities: bike lanes, buffered bikelanes. Destinations: Oregon District, 2nd Street Market, St. Anne'sHill. Locations: Patterson, Perry Street, Fifth Street, Second Street,Patterson at Jefferson, Patterson at MainWolf Creek Trail Gap
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Repeats	County	Project
4	MONT	Better Trail access thru downtown Dayton
4	MONT	Continuing the shared use path from Centerville Station to Centerville High School to the west and Sugarcreek Metropark to the east.
3	MONT	Bike facilities on Bridges in Dayton to west side.
3	MONT	Reduce downtown Dayton speed limit to 25
3	MONT	On-road bike paths that connect communities in Southern Montgomery County (Centerville, Miamisburg, Kettering, West Carrollton) to the Dayton Mall).
3	MONT	Iron Horse Park to Bellbrook, along Whipp & Hewitt to existing paths along Bigger, Clyo, and Wilmington
2	MONT	Bike parking on Brown St. Dayton
2	MONT	Trail from the new Springfield St trail to get to MoMBA
2	MONT	Provide additional ways (between Moraine and Carillon Park) to access the Great Miami River Trail for people who live in Kettering
2	MONT	Bike lane for full length of Yankee St.
2	MONT	Forest Ridge to Huffman Dam or Mad River Trail
2	MONT	Mountain Bike trial in Germantown or Twin Creek Metropark.
2	MONT	Street Metal Storm Drain (grate) slots where tires can get caught in along Burkhardt road in Riverside.
2	MONT	Improve crossing Helena St. by Island Park.
2	MONT	Bike lane n main st, north of shoup mill
2	MONT	Huber to Great Miami Trail connections
2	MONT	Forrer Blvd./Road. Change marked bike route into a separate lane. Mark the lane as a Bikes May Use Full Lane area.
2	MONT	Safe bike routes from all directions to downtown Centerville.
2	MONT	Reconfiguration of the crossing on Shroyer Rd on the Dayton-Kettering Connector
2	MONT	KOA campground to US 40 Old National Trail
	MONT	Pedestrian/bike crosswalk at Whipp and Polen (across from the Oak Creek Plaza)
	MONT	On-road bike lanes (NOT sharrows) connecting bike trail on Hempstead Station Rd. to amenities such as Wilmington-Stroop library
	MONT	More Centerville bike paths
	MONT	Repave underpasses along Wayne Avenue (35, RR trestle)
	MONT	Repave Jefferson St bike lane in Dayton
	MONT	GMR Trail in Dayton - provide separation along Veterans Parkway.
	MONT	Bike lane for 725 Miamisburg to Centerville.
	MONT	A bike lane on residential streets parallel to Far Hills North and South and the Equivalent parallel to 3rd street east and west
	MONT	A bridge from Eastwood lake over the Mad River to Eastwood park
	MONT	Iron Horse Connector to Centerville via Hewitt and Bigger Road Bridge.

Repeats	County	Project
	MONT	Bikeway from Old North Dayton to the Findlay Street ramp of the Mad River Trail
	MONT	Connecting the end of the planned path on Stanley Ave to the Great Miami River Corridor Bikeway
	MONT	More connections on the West side of Dayton to major bikeways (similar to the planned Broadway St bike lanes)
	MONT	Programs in Dayton elementary schools teaching kids how and where to access major trails
	MONT	UD to the Creekside Trail
	MONT	Connecting the shared use path at Alex-Bell & Clyo in Centerville to the shared use path at Centerville Station Rd & Clyo.
	MONT	Continuing the shared use path on E. Alex Bell in Centerville to shared use path near Wilmington Pike & Alex-Bell (that leads to Bellbrook)
	MONT	Shared use path connecting the two ends of Zengel Drive in Centerville (between Clyo & Rt 48)
	MONT	3rd and Springfield Street in Dayton to have bike lanes and signage
	MONT	A safe path from Brown School to Taylorsville
	MONT	Safe Bike Path crossing lane crossing RT-741 to Austin Landing
	MONT	Marked Bike Lane on roads in Wash. Twp
	MONT	West of Miami River from Miamisburg/south
	MONT	Bike path along North Keowee Street from downtown to Great Miami River bridge and connected to Great Miami Trail.
	MONT	Re-construct dangerous trail crossing in Miamisburg at Linden Ave
	MONT	Safe crossings of 675 at Far Hills
	MONT	Bike lanes on Ackerman, Rahn, Lincoln Blvd, Whipp in Kettering
	MONT	Routes from Oakwood to Dayton Mall avoiding US48
	MONT	On road bike lanes and shoulders throughout the greater Dayton area and suburbs!
	MONT	Creekside to Miamisburg thru Kettering
	MONT	Bike/ separated lanes from downtown to the south suburbs.
	MONT	Better connection from Miller Lane area to bikeways
	MONT	Bike facilities under the US 35 overpasses into downtown Dayton.
	MONT	Connect current trail in Germantown to Germantown MetroPark and/or Twin Creek Metropark
	MONT	Connect Germantown trail to Miamisburg (Medlar Bikeway)
	MONT	Trail connection between Germantown and Farmersville using old railroad path
	MONT	New trail or bike lane on Upper Miamisburg Road
	MONT	Trail or buffered lanes to connect business areas. Shops of Oakwood, Town & Country, Belmont
	MONT	Bike facilities on Siebenthaler or Ridge Aves east of Stillwater Trail
	MONT	Kettering and Oakwood connection to Great Miami path.

Repeats	County	Project
	MONT	GDRTA to run later into the evening
	MONT	Make sidewalk to street smoother at intersection of yankee/social/row on Northeast corner as there is not a gentle descend now and have to cut through grass
	MONT	Rework the path on the back side of Taylorsville Dam to get ride of the sharp 180 degree turn. Somewhat dangerous.
	MONT	Bike lane on Wright Bros Parkway
	MONT	Straightening out meanderings on Yankee Trace path, unsafe at bike speeds
	MONT	Bike lanes along SR 48 Centerville north to Whip Road.
	MONT	Assist Centerville in developing a bike/ped plan.
	MONT	Repave the DeWeese Parkway shared path
	MONT	Improve maintenance of Kettering Connector, including more frequent mowing and swift notice of blockages. The area is heavily wooded and downed trees occasionally block the path.
	MONT	Bike lane Third Street to Airway Shopping Center
	MONT	Iron Horse Trail to the Greene
	MONT	Bike hubs in all Greater Downtown Dayton neighborhoodds
	MONT	Improve intersection of Third and Keowee in Dayton.
	MONT	I want to see bike path improvements on the paths west of the river
	MONT	Remove parking meters on Wayne Ave in Dayton – make room for bike lane.
	MONT	Restore bike route signage through Belmont in Dayton
	MONT	Safety issue going through eastwood from creekside station toward riverscape
	MONT	Velodrome Wayne and Fifth Street
	MONT	Bike lanes marked for these streets: Bunnel Hill; SR 73; Yankee Rd; Lyons road; All of Lytle 5 Points
	MONT	Far Hills/Main street/Oakwood Ave/Brown Street protected bike lane
	MONT	A trail/sidewalk from Brandt Pike and Kitridge to the Kroger nearby. (Huber Heights)
	MONT	Extension of paved path or separated bike lane along shoup mill between riverside dr and main st
	MONT	DKC to Delco Park
	MONT	Mark Airway Rd. and Burkhardt Rd. street crossings.
	MONT	Bike parking at The Cannery Lofts
	MONT	Bike facility along Alex-Bell in West Carrollton and Miami Twp. (west from Munger)
	MONT	Crossover from Riverscape to St. Clair and from Jefferson to Riverscape. The transitions are very awkward
	MONT	Improve intersections along Patterson at Jefferson and Main in Dayton.
	MONT	More bike infrastructure connecting west Dayton

Repeats	County	Project
	MONT	Dayton Gran Fondo (no cars)
	MONT	Bike path along Rt 4 corridor from Huffman Dam to Chambersburg Road (then to Carriage Hill MP)
	MONT	Shakertown at Research - Iron Horse Trail crossing improvements.
	MONT	Safe crossing of Alex Road in West Carrollton from west side to YMCA on the east side. Or bike facility on Alex from Rose to Liberty.
	MONT	Improve bike facilities from Dayton Mall west to Great Miami Trail, along Lyons Road, Maue Road, and E. Linden Avenue
	MONT	Repave Iron Horse under US 35
	MONT	Phillipsburg to US 40 - Old National Trail
	MONT	Bike Facilities along N. & S. Findlay Street to connect the Mad River Trail to the Steve Whalen Bikeway
	MONT	Connect Chaminade-Julienne and DECA Prep to trail network and West Side
	MONT	Separated bike lane on Old Salem Road in Clayton and Englewood
	MONT	Connect at Powell Road intersection to the Trail. Improve Powell Road crossing of Old Troy Pike in Huber Heights
	MONT	Share or Path along Keowee Street from the Mad River Trail north across the Great Miami River to the Great Miami River Trail
	MONT	Dayton project along Valley - Rita - Keowee should have a connection to Mad River Trail by also heading south on Keowee
	MONT	Spur from Creekside Trail to Cosler in Dayton
	MONT	Connect Huffman MP parking lot on Lower Valley Pike to Huffman Dam and to MoMBA
	MONT	Connection from Tacoma Street (Cleveland Park island) to the Steve Whalen Bikeway
	MONT	No turn on red sign at Patterson & Monument
	MONT	Extend Great Miami River Trail in West Carrollton along the top of the levee from where North Alex curves south to connect with the rest of the bikeway.
	MONT	Oakwood Bike Path dead ends at U.D. campus. Need road marking to find way through campus.
	MONT	Connect Iron Horse Trail with Primary Village North and Village South Park
	MONT	More sharrows in BikeShare service area

Repeats	County	Project
10	WAR	Franklin to Middletown (& Hamilton)
5	WAR	Springboro better connected to the Great Miami trail
2	WAR	Lebanon to Great Miami Trail
2	WAR	A trail connecting the GMRRT and the LMST somewhere around Morrow

Repeats	County	Project
2	WAR	Extension south of Byers Road path down Woods Rd connecting with Pennyroyalthis in very dangerous, no shoulders, no walk, severe drop offs, actual traffic speed >45mph. Even extending this down Clearcreek Franklin Road to SR73 where similar situation exists between Pennyroyal and Tamarack
	WAR	Construct off road N/S trail between Springboro and Austin Road
	WAR	Improved safety in S'boro on SR741 south of OH73
	WAR	Safe separate Bike access to Soccer fields in Springboro
	WAR	Bike and Pedestrian access from Foliage Lane across creek into North Park and neighborhood east of North Park.
	WAR	Short stretch of SR 73 is two lanes, but is three lanes on either end
	WAR	Bike and Pedestrian way desired between Wheatmore Court and S. Richard's Run
	WAR	Bike and Pedestrian facility from eastern terminus of Kitty Hawk Drive in Springboro, north to southern terminus of Washington Church Road
	WAR	Bike and Pedestrian connection from Painters Court to Shady Pines Avenue in Springboro
	WAR	Bike and Pedestrian connection from Tanglewood Drive to SPARC n Go #2 along SR 73
	WAR	Bike facility on SR 123 bridge over Great Miami River in Franklin – connect west side neighborhood to Great Miami River Trail and downtown Franklin
	WAR	Concessions at Sparc n Go stations

Repeats	County	Project
2	PREBLE	Trails west to Eaton and Oxford
2	PREBLE	Brookville to Indiana (Preble Co.)
2	PREBLE	Please consider including Preble County in the Bikeways Plan for Miami Valley.
	PREBLE	I would like to see dollars spent in Preble County as in other counties and communities within the MVRPC responsibility program.
	PREBLE	Routes that intersect OH35 in West Alexandria &/or Eaton
	PREBLE	 An assessment study to consider a Preble County Bikeway; east/west as well as north/south Assistance and guidance to help our grass roots newly-formed committee to write grants To partner with the local YMCA and Preble County Park District To work with the Preble County Council on Aging to teach and share with them that bicycling can be fun and good for your health To prepare steps and activities to coordinate with the local historical society that has a new director onboard Use modern online methods to extend our message to the county and beyond Market ourselves to change behavior

Repeats	County	Project
16	CLARK	Eliminate bike lanes sections of LMR Trail in Springfield
3	CLARK	Bicycle lanes in downtown Springfield.
2	CLARK	Bicycle lanes on all main arteries in Springfield.
	CLARK	New Carlisle to Great Miami / Tipp city
	CLARK	Work with Clark Co to find a way to widen Jackson Road up to Dan Young's property a short distance and then cross his farm to traffic light.
	CLARK	Access to trails from Northern Clark County
	CLARK	An extension of the Tecumseh trail in New Carlisle to link with other trails in the area.
	CLARK	Shared use bikeways and on road bike lanes on major roadways in the Enon Area
	CLARK	Connector from the trail to Bechtel Ave. Springfield where there are great lunch stop locations.

Repeats	County	Project
2	DARKE	Brookville to Greenville
	DARKE	Connect along SR 49 to Montgomery County

Repeats	County	Project
23	REG	Low stress connections to the trails
21	REG	Programs to get more people on bikes
20	REG	better enforcement
19	REG	More trails
19	REG	More trail signage – colleges, restaurants, travel times, maps, consistent, Emergency numbers
19	REG	Clearing of facilities for bikes: more trail sweeping, sweeping bike lanes, sweeping road shoulders, clearing snow in bike lanes and trails, clean roads after crashes, educate public works about the importance to cyclists
18	REG	Training motorists on how to drive on shared roads with bikers
17	REG	More bike parking options – covered parking like Cleveland – park n rides (spec. at Fishburg and Huffman Dam)
13	REG	Classes for beginning road riders
11	REG	Funding for maintenance of trails
10	REG	More bike lanes
9	REG	A bike route app
8	REG	More restrooms
8	REG	Trail-side tent camping
7	REG	Better detours for highway construction
7	REG	Safe routes to school for all schools in the area.

Repeats	County	Project
6	REG	Volunteer safety patrols
6	REG	Education for beginning trail users
6	REG	Safety alarm stations along trails
6	REG	Close trail gaps
5	REG	More lighting on trails
5	REG	More mountain bike trails
5	REG	Funding for trail paving, repaving
5	REG	bike paths need to be elevated above routine flood levels.
5	REG	Bike Groups for underserved groups: women, youth, minorities
5	REG	Trail connections to major parks: Sugarcreek, Germantown, Miami County Parks, MoMBA, Carriage Hill, Huffman (from Riverside, HH), Cox Arb.
4	REG	More bike friendly direct routes between towns whether they be multi- use paths or marked road ways.
4	REG	Bike Ped Crossings over roads
4	REG	Green bike lanes
4	REG	Information on hotels near bike paths - bike friendly hotel program
4	REG	More shaded areas, "pull-off" areas, and benches along trails
3	REG	More drinking fountains along trails
3	REG	bicycle rental
3	REG	Curb cuts at all access points
3	REG	Set trail maintence standard – safety, timeliness
3	REG	Buffered bike lanes
3	REG	More share the road signs.
3	REG	Incentives for secure / weather protected bike parking
3	REG	Better advertising of new improvements such as new bikeways that have been opened.
3	REG	Proper cycling signage on streets
2	REG	Trail policing
2	REG	More development of business along bike path
2	REG	Include funding for width for bike facilities on all road widening projects
2	REG	Do away with most dedicated bike lanes as none are maintained to be kept clear of debris and many are located in unsafe area along parked cars.
2	REG	Establish a century loop on the trails system
2	REG	Three foot lane enforced
2	REG	No right turn on red where bike facilities are present
2	REG	Turn all breakdown lanes/shoulders to bike lanes
2	REG	Clear signage on major street approaches to bike pathways to alert motorists and increase education of motorist to bike traffic.

Repeats	County	Project
2	REG	Safe bicycling route maps of Loops using trails to reach rural areas with safe roads
2	REG	Mileage markers along all trails
2	REG	Bike Ed in schools
	REG	Cell phone charging stations
	REG	Stewardship programs for public outreach
	REG	Goose Control
	REG	US Bike Route 50 Signs
	REG	Regional marketing promoting biking activities by subject/month instead of individual communities promoting separately.
	REG	Group Rides organized by type of bike – road, mountain, recumbent.
	REG	Idaho Stop legal for cyclists
	REG	River Access
	REG	Bicycle lanes parallel to other highways, that are safe to bicyclists.
	REG	Ash Tree removal and replacement
	REG	Bikes with electric assist permitted on bikeways.
	REG	Sharrows/signage/markings for recently completed projects that do not have lanes or roadways that are not slated for repaving/ construction
	REG	Bike sensitive traffic signals - retrofit in to older intersections
	REG	More safety initiatives
	REG	Repair of current bikeways
	REG	Bike sharing project expanded to suburbs
	REG	Organized rides for people who getting back into riding
	REG	A contest for new bicycle rack parking installations at businesses. If a business installs a bike rack, they get one entry for each bicyclist who parks there for a month or two, and the winner gets a prize. It would get bicyclists out supporting their local companies, it would provide good advertisement, and it will help expand bicycle parking.
	REG	Sidewalks near schools
	REG	Kayak carrier rentals for bikes along the river for people who don't want to take 2 cars when they kayak short stretches of the river.
	REG	Extended trip guides (i.e. Springfield/YS to Cincinnati area along Little Miami River)
	REG	Additional access points from bike paths to streets
	REG	Need bike path on both sides of main roads not just on one side.
	REG	Supply vending machines for tools, tubes, chains, ect
	REG	Reallocating the travel mode goals to emphasize cycling in municipal planning which is tied to transportation funding (e.g. more \$ for bicycling, walking, public transit)
	REG	Bicycling and multi-modal education in drivers education classes
	REG	Better lighting on roadways

Repeats	County	Project
	REG	Set up a League of Cycle Merchants and try to get people who want to sell water, spare tires, snacks, and such and maybe even an emergency services to help stranded bikers with a number to call to get a flat fixed or something of that nature, during bike trail hours.
	REG	Address issues of automobile traffic studies when bike routes interfere with existing roadways. prudent use of tax monies Eliminate eminent domain for bikeways.
	REG	Make crosswalk signals longer
	REG	Partner with YMCAs
	REG	Partner with insurance companies to lower rates
	REG	Bicycle Boulevards
	REG	Restaurants on Trail Maps
	REG	Commuter Friendly trails, or lanes rather than just tourist trails
	REG	Bike boxes
	REG	Bike signals
	REG	Printed resources in multiple languages

Revised Project Scoring Criteria based on Regional Bikeways Committee input.

Criterion	Points	Total Maximum Possible Score				
System Connectivity: Provides an essential link in creating a continuous bikeway system within the study area	Provides an essential link in the proposed network; without this link, the system could not be completed: 19- 25 points max	25				
	Provides a low stress link to the regional trails network: 13-18 points					
	Important as a "stand-alone" project, but not critical to the overall system: 6-12 points					
	A long-term element and potential future link in the system: 0-6 points					
Transportation: Increases the use of bicycle travel to	Access to regional trails and parks: 0-3 points	15				
destinations	Access to residential neighborhoods: 0-3					
	Improves traffic safety: 0-3					
	Access to schools: 0-2					
	Access to transit: 0-2					
	Access to employment and retail: 0-2					
Implementation: Project or program is ready to be advanced to implementation	Feasible and ready for implementation: 10-15 points max	15				
	Requires further study but has the potential to be advanced: 4-9					
	Presents significant constraints: 0-3					
Local Priority: Project satisfies a need identified in a local plan or an identified weakness in a LAB Bike	Project is identified in a local or community level bicycle plan: 10 points	15				
Friendly Community application	Project meets an identified weakness in a past Bike Friendly community application to the League of American Bicyclists: 5 points					
Quality of Life Benefits: Project will provide quality of life benefits to the residents, visitors and businesses of	Presents particular tourism, environmental and/or business development opportunities: 0-5 points	10				
the Miami Valley	Project improves equity of access to cycling facilities: 0- 5 points					
Agency and Public Support: Project is supported by the organizations(s) responsible for its implementation	Project has full agency and public support: 7-10 points max	10				
and management	Project has potential to receive agency and public support: 4-6					
	Project may be able to receive future support: 0-3					
Cost: Project can be implemented within the costs provided based on identified opportunities and	Project can be implemented within the following range of unit costs:	10				
constraints	Less than \$200K/mile or location: 8-10 points max					
	\$200K-\$500K/mile or location: 3-7					
	Greater than \$500K/mile or location: 0-2					
	Non-capital projects: 0-10 points based on ability to reach the widest range of people per unit of cost required to develop policy or program					

Appendix C Funding Opportunities

The bicycling network in the Miami Valley exists at an interesting stage in 2015. The first segments of regional trail are over 40 years old, and have been re-paved and rebuilt more than once. There are many sections that are over twenty years old and these require monitoring and maintenance, as well. At the same time, the on-road network of bike facilities is in its relative infancy and resources are needed for additional miles of bike lanes, buffered bike lanes and cycle tracks.

Naturally, maintenance and development of a bikeway system requires adequate funding. There are several transportation funding streams that project sponsors in the Region can draw from to build out the network envisioned in this plan, including funds allocated by the Miami Valley Regional Planning Commission and other funds administered at the state level.

MVRPC-Attributable Funds

Federal transportation funds are allocated by formula to Metropolitan Planning Organizations, such as the Miami Valley Regional Planning Commission. MVRPC uses a transparent project evaluation process to select from the projects submitted during each open solicitation. Below are brief descriptions of each of these funding sources.

Surface Transportation Program (STP)

This is the most flexible source of funding available through MVRPC. STP funds may be used for any federally-eligible surface transportation project type, including planning studies. Bicycle and pedestrian facilities are eligible under this category, although practically speaking, under the MVRPC project evaluation system, a stand-alone bike or pedestrian project is unlikely to score competitively. On the other hand, all projects seeking STP funds through MVRPC must comply with the Regional Complete Streets Policy, meaning accommodation for bicyclists and pedestrians must be included in the project(unless an exception is met). These bicycle and pedestrian elements can be included in the STP funding for roadway projects. This represents an opportunity to fund bike lanes, buffered or protected bike lanes, and even cycle tracks as a part of a comprehensive roadway project.

STP funds require a minimum 20 percent local (non-federal funds) match and are typically not applied to design and right-or-way phases of projects. Typically, MVRPC allocates about \$10.8 million of STP funds on an annual basis.

Transportation Alternatives Program (TAP)

The MAP-21 legislation combined several past programs for non-motorized transportation into a single heading: TAP. Transportation Alternatives funds are designated for projects that enhance the accessibility of the transportation system for bicyclists, pedestrians and other non-motorized users(children, senior adults, and persons with disabilities). Trails, rail-to-trail conversions, sidewalks, and safe routes to school projects are all eligible project types under this category. MVRPC conducts a project selection process that is very similar to, but separate from, the STP solicitation to identify and select projects for the allocated TAP funds. Stand-alone bike and pedestrian projects will fare best in the TAP project evaluation system;

TAP funds represent an opportunity to construct key linkages in the regional cycling network, and to build safe, low-stress connections to the regional trails and within jurisdictions.

Similar to STP, TAP projects require a minimum 20 percent local (non-federal funds) match. Typically,MVRPC allocates about \$1.1 million in TAP funds annually.

Other Funding Opportunities

There are several sources for funds that are administered on a statewide basis that may be applied to the build out of the bicycling network in the Miami Valley.

Congestion Mitigation/Air Quality (CMAQ)

In recent years, the CMAQ program has transitioned from a program allocated by MPOs to a statewide solicitation and allocation process. This transition is reflected in the hybrid application process. Project submissions are still made through the larger metropolitan planning organizations in Ohio, including the Miami Valley Regional Planning Commission. However final ranking and project selection is completed by a statewide committee, on which MVRPC has a seat. Eligibility for CMAQ funds hinges on a demonstration that the project will reduce traffic congestion and/or reduce air pollution. As such, projects that enhance bicycle and pedestrian access are eligible for these funds, along with a number of other project types.

MVRPC's solicitation for CMAQ projects will occur to match the statewide process' schedule, and is anticipated to occur every other year. MVRPC uses a project evaluation system similar, but not identical, to the STP project evaluation system, and like TAP and STP CMAQ projects require a minimum 20 percent local (non-federal funds) match. MVRPC has historically devoted significant CMAQ funds to regional trails projects.

Recreational Trails Program (RTP)

The Ohio Department of Natural Resources (ODNR) administers this federal funds program which funds the development of trails (non-motorized and motorized) of all types, including paved, multi-use trails typical of the Miami Valley Trails. Trail support facilities, projects enhancing trail accessibility for persons with disabilities, and trail maintenance projects are also eligible under RTP. ODNR has typically solicited for RTP projects once per year with applications due in February.

As with other federal funding streams, RTP requires a minimum 20 percent local (non-federal funds)match. However, unique to the RTP program, RTP funds may be used as the local match for CMAQ, STP, and TAP projects (if the project is RTP-eligible).

Clean Ohio Trails (COT)

The Clean Ohio Program is a voter approved state bond issue that funds specific project types on a statewide basis; trails are one of the project types. The COT program is administered by the Ohio Department of Natural Resources (ODNR), which typically seeks project applications once per year in February. Trails and trailhead facilities, and the land acquisition needed for these facilities are eligible under this funding line. COT is state funding, and can therefore be used as local (non-federal) match for federally funded projects. COT funds have been used to develop several sections of the Miami Valley trails.

Safe Routes To School (SR2S)

While safe routes to school projects are eligible to apply for MVRPC-attributable TAP funds, they may also apply to the statewide pool of SR2S funds administered by the Ohio Department of Transportation.

SR2S funds are directed toward making active transportation (walking and biking) by students in K-8 schools safer. Eligible projects (either infrastructure or non-infrastructure) must be listed in an ODOT-approved school travel plan. These funds may also be applied for to assist the development of a school travel plan. ODOT typically solicits for SR2S projects once per year, with applications due in March.

NatureWorks

NatureWorks grants are administered by the Ohio Department of Natural Resources (ODNR) and distribute state bond issue funds (not related to Clean Ohio) designated for park and recreation facilities. Trails and trail-related facilities are eligible under this program. The typical grant awards are small; the majority are under \$100,000 and none exceed \$150,000. Applications are typically received annually, with the deadline in May.

Land and Water Conservation Program (LWCF)

The Land and Water Conservation Fund grant program provides up to 50 percent reimbursement assistance for state and local government subdivisions (townships, villages, cities, counties, park districts, joint recreation districts, and conservancy districts) to for the acquisition, development, and rehabilitation of recreational areas. Projects eligible for this line of funding must support the goals of the Ohio State Comprehensive Outdoor Recreation Plan (SCORP). Trails and trail support facilities are eligible projects. ODNR administers this funding program but does not solicit for projects every year. Under the terms of this federal program, the state can choose, at its discretion, to apply the funds to state priority projects or solicit for local projects. About half of the approximately \$140 million in LWCF funds received by Ohio over the years have gone to local projects.

Appendix D Design Recommendations and Resources

On-Street Bicycle Facility Design Treatments - Courtesy of Pedestrian and Bicycle Information Center May 14, 2015

	Roadside Design Guide (2011)	A Policy on Geometric Design of Highways and Streets (2011)	Guide for the Development of Bicycle Facilities (2012)	Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004)	Manual on Uniform Traffic Control Devices (2012)	Designing Walkable Urban Thoroughfares (2010)	Recommended Design Guidelines to Accommodate Pedestrians and Bicycles at Interchanges (2014)	Traffic Control Devices Handbook (2013)	Urban Bikeway Design Guide (2014)	Urban Street Design Guide (2013)	Draft Guidelines: PROWAG, Shared Use Path Guidelines (as of 2014)
	AASHTO	AASHTO	AASHTO	AASHTO	FHWA	ITE/CNU	ITE	ITE	NACTO	NACTO	US Access Board
A. Bicycle Facility Selection											
A1 Guidance of appropriate use/ typical application of bicycle facilities			Section 2.5.2	N/A	1	N/A	1	Page 571-572	Throughout entire document	N/A	N/A
B. General Roadway Design				1 .							
B1 Paved shoulders		Sections 2.7 4.4	Section 4.5		1	1	1	Pages 598-600		1	
B2 Bicycle route signs			Section 2.5.3		Sections 9B 20 9B 21			Pages 578	Page 139		
B2 Shared lane markings			Section 4.4		Section 9C 07			Pages 588-596	Page 133		
B4 Shared lane signage			Section 4.3		Sections 9B.06, 9B.19, 9B.20			Pages 597-598			
B5 Bicycle boulevards/neighborhood greenways			Section 4.10					Pages 586-587	Pages 149-214		
B6 Bicycle accommodations related to traffic calming			Sections 4, 12, 6, 4, 12, 7	N/A		N/A			Pages 167-214	N/A	N/A
B7 Bicycle accommodations on bridges/tunnels		Sections 4, 10, 3, 4, 16, 4	Section 4.12.3		Section 9B.19						
B8 Bicycle treatments at railroad crossings			Section 4.12.1		Section 9B.19			Pages 595-596, 613		-	
B9 Bicycle-safe drainage grate design		Section 2.7 4.7.2	Section 4 12 8		000000000000			Page 597			
B10 Rumble strips (bicycle guidance)		Section 4.5	Section 4.5.2					Pages 600-601			
B11 Colored bicycle facilities			Section 4.7.2		Interim approval (April 2011)			Pages 583-584 616	Page 119		/
									l ago l lo		
	1	1				1	1	1		1	
C1 Bicycle lane signs and pavement markings			Section 4.7		Sections 9B.04, 9C.04	-		Pages 603-604	Page 3		
C2 Bicycle lane design	Section 10.2.1.7	Section, 2.7, 4.3	Section 4.6		Section 9C.04			Pages 601-606	Page 3		
C3 Bicycle lanes on one-way streets (left or right side)			Section 4.6.3	_				Page 602	Page 21		
C4 Retrofitting bicycle facilities			Section 4.9	_							
C5 Buffered bicycle lanes			Section 4.7	N/A	Section 3D.02	N/A		Pages 605-606	Page 9	N/A	N/A
C6 Contra-flow bicycle lanes			Section 4.6.3					Pages 612-613	Page 15		
C7 Bicycle lanes adjacent to on-street parking (parallel or diagonal)			Section 4.6.5		Section 9C.04		Page	Pages 604-605	Page 3		
C8 Advisory bicycle lanes					Experimental status (2014)						
C9 Bicycle lanes adjacent to peak-hour parking											
C10 Bicycle lanes adjacent to transit stops					Figure 9C-6						
D. Separated Bicycle Lanes											
D1 Sidepath/shared-use path	Section 5.2.3	Section 7.3.9	Section 5.2.2					Pages 613-623			
D2 One-way separated bicycle lanes	Sections 5.2.3, 10.2.1.7			N/A	Section 9C.04	N//A		Pages 605-606	Pages 29, 35	N/A	N/A
D3 Two-way separated bicycle lanes	Sections 5.2.3., 10.2.1.7			D/A	Section 9C.04	D/A		Pages 605-606	Page 41	IN/A	N/A
D4 Separated bicycle lane design at transit stops									Page 32		
E. Intersection Design											
E1 Bicycle detection			Section 4.12.5		Sections 9B.13, 9C.05			Pages 624-625	Page 99		
E2 Signal timing for bicycle clearances		Section 7.3.9			Section 9D.02			Pages 625-628	Page 97		
E3 Bicycle signalheads	Section 4.6				Interim approval (Dec 2013)			Pages 628-629	Page 93		
E4 Bicycle push buttons					Section 9B.11			Pages 624	Page 96		
E5 Bicycle lane intersection approaches		Section 9.11.3	Section 4.8	NIA	Figures 9C-1, 9C-4, 9C-5, 9C-6	NVA		Pages 606-610	Page 73	N/A	NZA
E6 Combined bicycle lane/ turn lane				IN/A	Section 9C.07	IN/A			Page 79	N/A	IN/A
E7 Bicycle boxes					Experimental status (2014)				Page 49		
E8 Bicycle crossing markings					Section 3B.08				Page 55		
E9 Two-stage queue boxes					Experimental status (2014)				Page 61		
E10 Separated bicycle lane intersection approaches				1					Page 85		
E11 Bicycle design treatments at roundabouts		Section 9.3.4	Section 4.12.11		Section 9C.04			Pages 611-612			
E12 Bicycle Lanes and Interchanges											
E12.1 Bicycle lane exit ramp							Page 10				
E12.2 Bicycle lanes through on-ramps			Section 4.12.10	N/A		N/A	Pages 9-16	Pages 610-611		N/A	N/A
E12.3 Bicycle lane at Single Point Interchanges			Section 4.12.10	_			Page 23-25	1 ages 010-011		1	

Note: Page numbers refer to printed version of design guideline.



Shared Use Path Design Treatments - Courtesy of Pedestrian and Bicycle Information Center March 1, 2015

	Roadside Design Guide (2011)	A Policy on Geometric Design of Highways and Streets (2011)	Guide for the Development of Bicycle Facilities (2012)	Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004)	Manual on Uniform Traffic Control Devices (2012)	Designing Walkable Urban Thoroughfares (2010)	Recommended Design Guidelines to Accommodate Pedestrians and Bicycles at Interchanges	Traffic Control Devices Handbook (2013)	Urban Bikeway Design Guide (2014)	Urban Street Design Guide (2013)	Draft Guidelines: PROWAG, Shared Use Path Guidelines (as of 2014)
	AASHTO	AASHTO	AASHTO	AASHTO	FHWA	ITE/CNU	(2014) ITE	ITE	NACTO	NACTO	US Access Board
A. General Shared Use Path Design											
A1 Width of shared use path			Section 5.2.1	Section 3.2.14				Page 614			R302.3.2
A2 Shoulders on path			Section 5.2.1	Section 3.2.14				-			R302.3
A3 Clear zone adjacent to path			Section 5.2.1	Section 3.2.14							
A4 Barrier or guardrail requirements	Section 5.2.3	Section 4.10.3	Section 5.2.1								
A5 Sidepath design considerations		Section 2.7, 4.15.2	Section 5.2.2					Page 614-616			
A6 Separated bicycle and pedestrian paths			Section 5.2.1								
A/ Equestrian considerations		0	Section 5.2.3								
A8 Design speed		Section 2.7	Section 5.2.4								
A9 Horizontal alignment		Section 2.7	Section 5.2.5								
A10 Cross slope		Contine 0.7	Section 5.2.6	Section 3.2.14							R302.6
A11 Grade of shared use path		Section 2.7	Section 5.2.7	Section 3.2.14							R302.5
			Section 5.2.9								
A13 Bridges and underpasses		Section 4.10.3, 4.16.4	Section 5.2.10	Section 3.5.3							R302.7
A14 Drainage		Section 2.6.2	Section 5.2.11	Section 3.5.4							
A16 Minimum curue radius		Section 2.7	Section 5.2.12	360001 3.3.4							+
A16 Winimum curve radius		Section 2.7	Section 5.2.5								
A17 Stopping signt distance for shared use path A18 Railroad grade crossings		Section 5.2.6	Section 5.2.8		Chapter 8D			Page 623			
B Intersection Design		0001011 0.2.0			onapier ob			1 490 020	1		1
D. Intersection Design	Section 5.2.2	1	Section 5.2.4	1			1	Dogo 614 616	1		1
B1 Sidepath Intersections B2 Path widening at intersections	Section 5.2.5		Section 5.3.4					Fage 614-616			
B3 Curb ramps and aprons		Section 4.17.3	Section 5.3.5	Section 3.3.5							R304.5.1.2
B4 Shared use path chicanes			Section 5.3.5								
B5 Restricting motor vehicle traffic			Section 5.3.5								
B6 Crossing islands		Section 4.17.3	Section 5.3.5	Section 3.4.1		Pages 156-157				Page 116-117	
B/ Transition zone			Section 5.3.6			Daras 111 110 101 107					
B8 Traffic calming for intersections			Section 5.3.6	Section 2.6, 3.4.2		195-197				Page 45-47	
B9 Shared use paths through interchanges			Section 5.3.6	Section 2.4.2			Page 9 -21			Dogo 54, 114, 115	
Bit Raised crosswarks				Section 3.4.2			Page 8			Page 54, 114-115	4
B11 Midblock Crossings			Contine 5.2.2	Conting 2.4.4	Figure OD 7	Daras 450 455					
B11.1 Geometric design issues			Section 5.3.2	Section 3.4.1	Figure 9B-7 Section 0B 03	Pages 150-155					R302.6.2
B11.3 Clear sight triangles for shared use path			Section 5.3.2		Section 95.05						
B11.4 Clear sight triangles for roadway at trail crossings			Section 5.3.2								
C. Signals. Signs and Markings Related to Shared Use Paths						•					
C1 Signals				1							1
C11 Crossing timing			Section 5.4.3	Section 4.1.2				Pages 553-554 381-382			4
C1.2 Signal actuation for shared use path users			Section 5.4.3		Sections 4E.08, 4E.09, 9B.13, 9C.05			Pages 214-215, 402, 553, 624- 625			
C1.3 Pedestrian Hybrid Beacon (HAWK Signal)			Section 5.4.3		Section 4F		Page 7	Page 556-558, 225-226, 338	Page 111-116		
C1.4 RRFB (Rectangular Rapid Flash Beacon)					Interim approval (July 2008)		Page 8	Page 560, 226	Page 105-110		
C1.5 Pedestrian signal heads	Section 4.6			Section 4.1.4, 4.1.6	Section 4E			Page 551-553, 334-338, 412		Page 110-111	
C1.6 Bicycle signal heads					Interim approval (Dec 2013)			Page 628-629	Page 93-98		
C1.7 HAWK and RRFB at vehicular intersections					Section 4F.02			Page 628-629			
C2 Signs											4
C2.1 Sign placement next to paths			Section 5.4.2		Section 9B.01			D 047			
C2.2 Sign sizing	Section 4.3.3		Section 5.4.2		Section 9B.02 Section 9B.01			Page 617			
C2.4 Intersection with roadway signage	0000011 4.0.0		Section 5.4.2		Section 2C.49			Page 617-621			
C3 Pavement Markings on Shared Use Path											
C3.1 General markings			Section 5.4		Section 3B.20, 9C.03			Page 621-623			
C3.2 Marked crosswalks			Section 5.4.1					Page 622			
C3.3 Centerline striping on shared use path			Section 5.4.1		Section 9C.03			Page 621			
C3.4 Edgeline striping on shared use path			Section 5.4.1		Figure 00.0			Page 621-622			
C3.6 Pavement markings to cumplement intersection control			Section 5.4.1		Figure 90-8			raye 023			
C3.7 Supplemental payement markings to supplement intersection control			Section 5.4.1								
C3.8 Advance stop or yield lines			Section 5.4.1		Section 3B.16		Page 7				

Note: Page numbers refer to printed version of design guideline.

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Appendix E Sidepath suggested guidelines

Sidepaths and Wide Sidewalks as Bikeways

This plan update makes a strong case for facilities that provide separation between motor traffic and bicycle traffic along high-stress corridors. The case has been made with both national survey data and regional survey data developed as a part of this update process: the "interested but concerned" portion of the cycling public places a premium on safety, and they seek separation for that safety. As the charts on pages 34 and 35 indicate, these cyclists, who represent the majority of the general public, report increasing comfort with increasing separation from traffic. This group, in contrast to the "strong and



The Dayton-Xenia Road sidepath has numerous driveway crossings.

fearless," express comfort with sidepath facilities.

This difference is not altogether surprising. Sidepaths are bikeways located along roadways in a location where one would often see a sidewalk. They are typically outside the curb, separated from the motor vehicle lanes by a green strip, and perhaps a change in elevation. To the "interested but concerned" cyclist, sidepaths offer a clear separation from motorized vehicles. However, the "strong and fearless" rider is likely to focus on the high number of driveway crossings these facilities often feature. They are both right.



The Byers Road sidepath includes long stretches of uninterrupted bikeway. This will be fine as long as surrounding development does not result in numerous access crossings in the future.

Given this region's long history of trail building, sidepaths are also a popular facility type, because they are so similar to our trails. The City of Beavercreek and Centerville/Washington Township are two examples of jurisdictions that have made a strong commitment to sidepaths to serve cyclists and pedestrians in their communities. This plan recognizes the role sidepaths can play in the development of a complete, low-stress cycling network. At the same time, appropriate placement of sidepath facilities is important to ensure their convenience and safety.

The design guidance provided by NACTO and AASHTO are reliable guides for all facility types, and both of these sources express a preference for bicycle facilities inside the curbs over sidepaths. Their reasoning is related to the increased number of conflicts between sidepath users and roadway users at intersections.

To that end, this plan suggests careful consideration of the placement of sidepath facilities. Consultation of AASHTO's Guide to the Development of Bicycle Facilities for the selection of facility types is a good place to start. The League of Illinois Bicyclists has created an online tool that provides a quick guide to whether a sidepath facility is an appropriate choice for a particular location. The tool makes an assessment based on factors such as AADT, speed limits, and the number of residential and commercial driveway crossings and can be found at www.bikelib.org/roads/blos/sidepathform.htm.

Local engineering judgment of each project context, advised by early involvement of the general public, should guide designers on the choices between facility types. When balancing the pros and cons of a sidepath versus an on-street facility, safety, cost, available right-of-way will be important factors.

Appendix F Cost Factors Used

COST FACTORS USED IN SCORING - 2015 DOLLARS

From ODOT Dist. 7:

New Multi-use Trail (10') - \$150,000/mi New Separated Bike path (8') - \$125,000/mi Striping - \$500-\$1500/mi Resurfacing Multi-use - \$65,000/mi Resurfacing Bike path - \$52,000/mi Signs - \$125/ea.

From staff at LJB:

Below are some budgetary numbers that can be used to estimate a buffered bike lane.

For a 60' pavement section - estimate \$125 per linear foot

For a 48' pavement section - estimate \$100 per linear foot

Since bike lanes are typically incorporated onto an existing facility without widening, the numbers above are bare bones to mill and overlay existing pavement and apply new pavement markings. This does not include curb repair, pavement replacement or widening, curb ramps, signal work, signage, utility relocation, r/w, etc.

Bike Miami Valley list:

- Shared Lane (sharrow) Marking: \$180 per marking (1)
- Bicycle Lane: ~\$133,000 per mile (1)
- Green "paint:" ~\$15-20 per linear foot (2)
- Protected bikeway:

Plastic Posts: ~\$140,000 per mile (3)

Curbs: ~\$250-500 per mile (4)

(1) Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researcher, Engineers, Planners, and the General Public

- (2) City of Dayton
- (3) City of Chicago
- (4) San Francisco Bicycle Coalition

Appendix G Bike Miami Valley Protected Lanes Research Summary

National Data on Protected Bike Lanes



Growth of Protected Lanes in the U.S.





Types of Protected Lanes



Striped Buffer



Striped Buffer with Plastic Posts



Striped Buffer with Parked Cars



Raised Concrete Curb



Striped Buffer with Flower Beds



Source: Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S. (National Institute for Transportation and Communities)



Protected Lanes: Impact on Ridership

Ridership changes before and after addition of protected bike lanes in six cities (Portland, San Francisco, Chicago, Austin, NYC, and Washington DC):

City	Street	Increase in	Previous	Type of	
ony		Cycling Volume	Condition	Separation	
	9th Avenue	65%	No prior bike lane	Plastic Posts	
	8th Avenue	9%	Prior bike lane	Parked Cars	
	1st Avenue	160%	No prior bike lane	Parked Cars	
Now York	Columbus Avenue	51%	No prior bike lane	Parked Cars	
NEW TOLK	2nd Avenue (2nd to 14th)	49%	Prior bike lane	Parked Cars	
	2nd Avenue (23rd to 34th)	60%	No prior bike lane	Parked Cars	
	Broadway (47th to 59th)	108%	Prior bike lane	Parked Cars	
	Broadway (18th to 23rd)	28%	Prior bike lane	Parked Cars	
	Rio Grande	126%	Prior bike lane	Plastic Posts	
Austin	Bluebonnet	46%	Prior bike lane	Plastic Posts	
	Barton Springs	58%	No prior bike lane	Plastic Posts	
Chicago	Dearborn St	171%	No prior bike lane	Plastic Posts	
	Milwaukee Avenue	21%	Prior bike lane	Parked Cars	
Portland	Multnomah Street	68%	Prior bike lane	Planters	
San Francisco	Fell St	46%	Prior bike lane	Plastic Posts	
Washington DC	L Street	65%	No prior bike lane	Plastic Posts	

Sources: Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S. and the New York City Department of Transportation



Protected Lanes: User Surveys

Cyclists cite protected lanes as a reason they ride more often:



Source: Rider Intercept Survey of 1,111 riders (Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S.)



IMPACT ON SAFETY

Why Do Protected Lanes Increase Ridership?



Why Do Protected Lanes Increase Ridership?

Protected lanes also greatly increase rider <u>actual safety;</u> data from NYC protected lanes:

- Crashes with injuries have been reduced by 17%
- Pedestrian injuries are down by 22%
- Cyclist injuries show a minor improvement even as bicycle volumes have dramatically increased
- Total injuries have dropped by 20%

Source: Protected Bike Lanes in NYC (New York City Department of Transportation)

Protected Bicycle Lanes with 3 yrs of After Data: Before vs After





COMMUNITY SUPPORT



Protected Lanes: Community Support

Protected lanes impact more than just the cycling environment on the street, they can become an important part of creating a walkable urban place

Source: Survey of 2,283 residents in communities with protected lanes (Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S.)

Because of the protected bike lanes,

...my satisfaction with the walking environment on this street





Protected Lanes: Community Support





PROTECTED LANE SEPARATION ELEMENTS



Protected Bike Lane Separation Elements

Stated cyclist comfort levels with various types of protected bike lanes:

- Designs with more physical separation had highest scores. Buffers with objects (e.g. flexposts, planters, curbs, or parked cars)
- Flexpost buffers got very high ratings even though they provide little actual physical protection
- Any type of buffer shows a considerable increase in selfreported comfort levels over a striped bike lane

Source: Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S.



Appendix H

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